

## In the United States Patent and Trademark Office

In re the Application of:

John W. Dunsmoir	)	
Serial Number: 09/435,004	)	Group: 2176
Docket Number: AT9-99-561	)	Examiner: Almari Romero Yuan
Filed on: 11/05/99	)	
For: "Method and System for Producing	)	
Dynamic Web Pages"	)	

### APPEAL BRIEF

#### *Real Party in Interest*

The subject patent application is owned by International Business Machines Corporation of Armonk, NY.

#### *Related Appeals and Interferences*

None.

#### *Status of Claims*

On February 20, 2004, appellant appealed from the final rejections of claims 1 - 44.

#### *Status of Amendments*

The claims have been amended from their originally filed states, and all amendments have been entered by the examiner. Claims 1, 18, and 34 are independent claims. The claims are reproduced in the Appendix to this Appeal Brief.

#### *Summary of the Invention*

Web page content is dynamically produced to replace the content of existing web pages, which allows for older, "static content" web pages to be automatically upgraded to include content which is changeable without the need for re-coding the older web pages to include newer technologies such as Dynamic HTML (DHTML), Java scripts, and the like. As such, the

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invention is highly useful for many thousands of existing web pages which otherwise would be prohibitively costly to upgrade and change.

The invention works as a servlet program running on a web server, preferably the same web server where the older web pages are stored. The invention uses a system dictionary in which each entry represents a static layout tag type to be mapped to one or more new dynamic structures. A web page, or a portion of a web page, is then automatically modified by extracting its static layout definitions (leaving behind the static content definitions) to create a layout template, and then alternate content (e.g. the new or dynamic content) is automatically mapped into the layout template.

Through this process, the new web page produced has the same layout (e.g. same arrangement of elements) as the old page, but contains new content such as text, images, links, etc. This provides the functionality of a web page having dynamic content, thereby allowing older pages to be updated and modified automatically, and as the requests for the pages are received (e.g. on-demand), without having to change the code of the original web page (e.g. no one has to edit the original web page to replace static content with statements such as DHTML or Java scripts).

### *Issues*

Claims 1 - 44 were finally rejected under 35 U.S.C. §103(a) based upon newly cited art and/or reasons as being unpatentable over U.S. patent 6,356,903 to Baxter, *et al.* (hereinafter "Baxter"), in view of U.S. Patent 6,559,861 to Kennelly, *et al.* (hereinafter "Kennelly"), and further in view of newly cited U.S. Patent 6,262,729 to Marcos, *et al.* (hereinafter "Marcos").

Applicant respectfully submits that examiner's interpretation of the cited reference is incorrect with respect to the specific steps, elements, and limitations which we have claimed in view of our disclosure. In the final rejections, examiner has agreed that Baxter and Kennelly do not teach of using a "system dictionary" as we have described and claimed, and has newly argued that Marcos teaches such a system dictionary.

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***Grouping of Claims***

Applicant believes for the purpose of this appeal and based upon the scope and subject matter defined in the claims 1 - 44 stand or fall together.

***The Examiner's Rationale***

In rejecting independent claims 1, 18 and 33, examiner has reasoned that Baxter teaches our steps of receiving a web page portion having static layout definitions and static content definitions, extracting those static layout definitions from the received web page, and creating a web page layout template from the extracted layout definitions. Examiner has stated that Baxter does not teach mapping alternate content definitions into this web page layout template.

Examiner has reasoned that Kennelly teaches combining "data from data files with base management object to provide management objects". Examiner has stated that Kennelly does not, however, teach use of system dictionary, matching layout definitions to entries in the dictionary, and replacing content per the matching dictionary entries.

Examiner has reasoned that Marcos provides teaching of such a system dictionary as a "dictionary class".

Examiner has not stated where in the cited references motivation or suggestion to combine Baxter with Kennelly and Marcos, as proposed, is found.

In rejecting the remainder of the claims, examiner has provided references to where examiner believes each of our additional restrictions is found in one or more of the cited references (e.g. received web page portion is HTML, transmission medium is the Internet, etc.). Rejection of these dependent claims, however, depends upon the rejection basis for the independent claims 1, 18, or 33.

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***Arguments***

We propose that errors cumulative to the improper final rejection under 35 U.S.C. §103(a) of independent claims 1, 18, and 33, as well as rejection of all dependent claims, include:

- (a) failing to examine our claims in light of our specification and the definitions for our terminology provided therein;
- (b) failing to consider the entirety of the disclosure of the cited art in order to determine the meaning of the terms used in the cited art; and
- (c) applying the definitions of the cited art to the interpretation of our claim language in order to support a proposed obviousness combination of the cited art;
- (d) failing to establish motivation to modify cited references to yield our claimed invention; and
- (e) employing references from a non-analogous art in combination on which to base a rejection.

These errors have led to our independent claims, and subsequently our dependent claims, being incorrectly rejected over a proposed combination of the cited art which fails to teach or suggest all of our claimed elements, steps or limitations as required by MPEP §2143.03.

Examiner has agreed that neither Baxter nor Kennelly teach use of a system dictionary as we have disclosed and claimed. Therefore, the rejection of our independent claims rests upon whether or not Marcos discloses a system dictionary as we have claimed.

We have claimed for example in Claim 1:

“providing one or more entries in a system dictionary, each entry representing a static layout tag type to be mapped to one or more dynamic structures”

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Please note specifically that our entries in our dictionary represent static layout tag types to be changed, not dynamic layout tag types. In our disclosure, we have correspondingly described these dictionary entries as defining which static content elements in a page are to be replaced without changing the layout of those elements.

Marcos, however, provides a user-operated tool which allows the user to "bind" variable or dynamic values to certain page elements during the design of the web page. These "bindings" are stored in their system dictionary, and during runtime, these bindings are resolved by the system to insert actual values for the page elements. For example, see Marcos' disclosure at the following points:

"The application developer writes a set of statements in a text file that are interpreted to determine the bindings. There is, however, no toll that provides an environment for interactively defining the bindings using a graphical user interface (GUI) and for generating the binding statements." (Marcos' Background of the Invention, col. 2, lines 53 - 68)

...

"To bind a definitional element and a back-end state item, a definitional element is selected from the GUI." (Marco's Summary of the Invention, col. 4, lines 19 - 20)

...

"The user can change a default or other binding using an input screen referred to as an inspector." (Marcos' Summary of the Invention, col. 4, lines 37 - 38)

...

"Functionality is provide for displaying a set of potential, default bindings using selections made by the GUI user ..." (Marcos' Detailed Description, col. 6, lines 10 - 12)

...

"The GUI of the invention is used to specify a binding including specifying the variable (or method), the dynamic definitional element and the element's attribute." (Marcos' Detailed Description, col. 10, lines 18 - 21)

...

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"The invention provides a mechanism for binding Web page definitional elements to a runtime, or back-end, state using a graphical user interface (GUI)." (Col. 6, lines 10 - 13)

...

Thus, Marcos' system dictionary entries contain the variable-to-back-end-state bindings which a user selects from the Marcos' GUI screen *during initial design of the web page*. This yields a web page having some static definitions, but also have some *dynamic definitions* as determined by the user of the Marcos' tool during design of the web page. Then, during runtime, the Marcos system assigns values to those elements which are previously designated as dynamic elements, but does not modify the static elements.

As such, Marcos' dictionary entries represent *dynamic page elements*, where our dictionary entries represent *static page elements*. The difference is considerable, and well discussed in our background of the invention. Our invention addresses runtime modification of existing web pages to modify the static content of the existing web page (e.g. older web page), which avoids re-designing the older pages to include dynamic element definitions.

Marcos tool addresses the problem by allowing the designer to determine, in advance of completing the original web page, which elements will be dynamic, and facilitates the user's entries of these dynamic element statements directly into the web page design.

To employ Marcos tool to modify existing web pages and their static content, a user would necessarily have to use the Marcos GUI to select variables and bindings, thereby re-designing the web page to include dynamic statements.

Therefore, Marcos is taken from the arts of tools for users to use to design web pages, where our invention, however, pertains to arts for *avoiding the redesign* of older web pages, and for changing static content of those older web pages during runtime.

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For these reasons, Marcos fails to:

- (a) teach entries in a system dictionary for which *static* informational elements (e.g. content) in an existing web page are to be changed;
- (b) fails to provide suggestion or motivation as to how or why to modify their design tool, which specifically requires user interaction to select web page items to be defined as dynamic, to a functionality which modifies pre-existing *static* content.

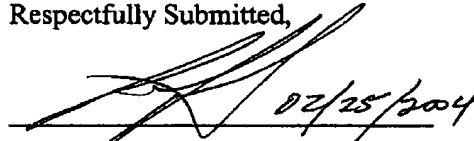
As the examiner's proposed combination does not teach all of the elements, steps and limitations of our claims, relies upon non-analogous art, and is silent as to suggestion or motivation to make such a combination, the rejections should be overturned.

As our system dictionary functionality has been claimed in all three independent claims, all remaining dependent claims are patentable over the proposed combination for the same reasons with respect to Marcos and their system dictionary functionality.

### **Summary**

For the foregoing reasons, it is submitted that the examiner's rejections of Claims 1 - 44 were erroneous, and reversal of these holdings is respectfully requested.

Respectfully Submitted,



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**Appendix**

## Clean Form of Claims

**Claim 1:**

The method of producing dynamic web page content for transmission on a computer network, comprising the steps of:

providing one or more entries in a system dictionary, each entry representing a static layout tag type to be mapped to one or more dynamic structures;

receiving at least one web page portion, said web page portion comprising static layout definitions and static content definitions;

extracting said layout definitions from said web page;

creating at least one layout template web page from said extracted layout definitions; and

mapping alternate web content into said layout template web page by replacing content parameters associated with said extracted layout definitions for which matching entries are found in said system dictionary, thereby creating at least one web page portion containing said alternate content.

**Claim 2:**

The method of producing dynamic web page content of Claim 1, wherein said received web page portion contains Hyper Text Markup Language.

**Claim 3:**

The method of producing dynamic web page content of Claim 1, wherein said template web page contains Hyper Text Markup Language.

**Claim 4:**

The method of producing dynamic web page content of Claim 1, wherein said alternate content web page contains Hyper Text Markup Language.



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**Claim 5:**

The method of producing dynamic web page content of Claim 1, further comprising the step of retrieving said alternate web content from a computer-readable medium.

**Claim 6:**

The method of producing dynamic web page content of Claim 5, wherein said step of retrieving said alternate web content from a computer-readable medium includes retrieving said alternate content from a computer database.

**Claim 7:**

The method of producing dynamic web page content of Claim 5, wherein said step of retrieving said alternate web content from a computer-readable medium includes retrieving said alternate content from a computer file system.

**Claim 8:**

The method of producing dynamic web page content of Claim 5, wherein said step of retrieving said alternate content from a computer-readable medium includes retrieving said alternate web content from a computer network interface.

**Claim 9:**

The method of producing dynamic web page content of Claim 8, wherein said step of retrieving said alternate web content from a computer network interface includes retrieving said alternate content from a local area network interface.

**Claim 10:**

The method of producing dynamic web page content of Claim 8, wherein said step of retrieving said alternate web content from a computer network interface includes retrieving said alternate content from an Internet.

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## Claim 11:

The method of producing dynamic web page content of Claim 1, further comprising the step of receiving a first reference to said received web page portion and a second reference to said alternate web content via an Hyper Text Transfer Protocol Post command

## Claim 12:

The method of producing dynamic web page content of Claim 1, further comprising providing a servlet for extracting said template web page from said received web page portion.

## Claim 13:

The method of producing dynamic web page content of Claim 1, further comprising providing a servlet for mapping said alternate web content into said template web page.

## Claim 14:

The method of producing dynamic web page content of Claim 1, further comprising the storing of said alternate web page in a computer-readable media.

## Claim 15:

The method of producing dynamic web page content of Claim 1, further comprising transmitting said alternate web page over a computer network.

## Claim 16:

The method of producing dynamic web page content of Claim 15 wherein said computer network includes a local area network.

## Claim 17:

The method of producing dynamic web page content of Claim 15 wherein said computer network includes an Internet.

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**Claim 18:**

A computer usable medium embodied with a program code means for use with a web server system to create dynamic web documents, said code means performing the steps comprising:

- providing one or more entries in a system dictionary, each entry representing a static layout tag type to be mapped to one or more dynamic structures;
- receiving a web document portion, said web document portion having layout definition and content definition;
- extracting said layout definition;
- creating a template web document using said extracted layout definition; and
- retrieving alternate web content suitable for mapping into a web document; and
- mapping said alternate web content into said template web document by replacing content parameters associated with said extracted layout definitions for which matching entries are found in said system dictionary, thereby creating a web page containing said alternate web content.

**Claim 19:**

A computer usable medium according to Claim 18, wherein said step of receiving a web page portion comprises receiving a Hyper Text Markup Language web page portion.

**Claim 20:**

A computer usable medium according to Claim 18, wherein said template web page comprises a Hyper Text Markup Language web page.

**Claim 21:**

A computer usable medium according to Claim 18, wherein said alternate web page comprises a Hyper Text Markup Language web page.

Serial No. 09/434,797John W. DunsmoirPage 12 of 15**Claim 22:**

A computer usable medium according to Claim 18, wherein said step of receiving a web document portion comprises retrieving said web document portion from a computer database.

**Claim 23:**

A computer usable medium according to Claim 18, wherein said step of receiving a web document portion comprises retrieving said web document portion from a computer network.

**Claim 24:**

A computer usable medium according to Claim 23, wherein said step of retrieving said web page portion from a computer network comprises retrieving said web document portion from an Internet.

**Claim 25:**

A computer usable medium according to Claim 18, wherein said step of receiving a web document portion comprises retrieving said web document portion from a computer file system.

**Claim 26:**

A computer usable medium according to Claim 18 comprising at least one servlet.

**Claim 27:**

A computer usable medium according to Claim 26 comprising at least one Java servlet.

**Claim 28:**

A computer usable medium according to Claim 18, wherein said further comprises code means for storing said created web page in a computer readable medium.

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## Claim 29:

A computer usable medium according to Claim 28 wherein said code means for storing said created web page in a computer readable medium comprises code means for storing said created web page in a computer file system.

## Claim 30:

A computer usable medium according to Claim 28 wherein said code for storing said created web page in a computer readable medium comprises code means for storing said created web page in a computer database.

## Claim 31:

A computer usable medium according to Claim 18, wherein said code means further comprises code means for transmitting said dynamic web page over a computer network.

## Claim 32:

A computer usable medium according to Claim 31, wherein said computer network comprises an Internet.

## Claim 33:

A system for producing web pages containing dynamic content, comprising:

- one or more entries in a system dictionary, each entry representing a static layout tag type to be mapped to one or more dynamic structures;
- a means for receiving a first web page portion, said first web page having at least one static content definition and an associated layout definition;
- a means for extracting said layout definition from said first web page;
- a means for receiving alternate web content to be mapped into a web page; and
- a means for mapping said received alternate web content into said extracted layout definition by replacing content parameters associated with said extracted layout definitions for which matching entries are found in said system dictionary, thereby creating a second web page.

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## Claim 34:

A system for producing web pages containing dynamic content according to Claim 33 wherein said means for receiving a first web page portion includes a means for receiving a Hyper Text Markup Language web page portion.

## Claim 35:

A system for producing web pages containing dynamic content according to Claim 34 wherein means for receiving a Hyper Text Markup Language web page portion includes a means for receiving web content from a computer database.

## Claim 36:

A system for producing web pages containing dynamic content according to Claim 34 wherein means for receiving a Hyper Text Markup Language web page portion includes a means for receiving web content from a computer file system.

## Claim 37:

A system for producing web pages containing dynamic content according to Claim 34 wherein means for receiving a Hyper Text Markup Language web page portion includes a means for receiving web content from a computer network.

## Claim 38:

A system for producing web pages containing dynamic content according to Claim 37 wherein means for receiving web content from a computer network includes a means for receiving web pages from an Internet.

## Claim 39:

A system for producing web pages containing dynamic content according to Claim 33 wherein said means for extracting said layout definition from said first web page comprises a servlet program.

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## Claim 40:

A system for producing web pages containing dynamic content according to Claim 33 wherein said means for mapping said alternate web content into said layout definition and creating a second web page comprises a servlet program.

## Claim 41:

A system for producing web pages containing dynamic content according to Claim 33 further comprising a means for storing said created web page in a computer database.

## Claim 42:

A system for producing web pages containing dynamic content according to Claim 33 further comprising a means for storing said created web page in a computer file system.

## Claim 43:

A system for producing web pages containing dynamic content according to Claim 33 further comprising a means for transmitting said created web page over a computer network.

## Claim 44:

A system for producing web pages containing dynamic content according to Claim 43 wherein said computer network includes an Internet.